

SEQUENCE LISTING

<110> Agrinomics LLC

<120> GENERATION OF PLANTS WITH ALTERED OIL CONTENT

<130> 6616-71303-07

<150> PCT/US2003/040987

<151> 2003-12-18

<150> 60/434,601

<151> 2002-12-18

<160> 2

<170> PatentIn version 3.2

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| aggttgacag | gcaggagcga | tgacactgtc | tccatgatag | aggcgtattt | acgagcaaac | 1140 |
| aagatgtttg | tggattacag | tgagccggag | agtaagacag | tttattcctc | atgtctggaa | 1200 |
| ttgaatctcg | aggatgtgga | accttgtgtt | tctgggtcca | agaggcctca | tgatcgtgtt | 1260 |
| cctttgaagg | aaatgaaagc | ggactggcat | tcttgcttgg | acaatagagt | aggattcaag | 1320 |
| ggtttcgctg | tacctaaaga | agcacagagt | aaggctgtag | agttcaattt | taacgggacc | 1380 |
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| gctctggctg | gaactgttga | cattgatttt | gagacacagc | ccattggaac | tgggaaagat | 1860 |
| ggaaaacaga | tatttttcag | ggacatttgg | ccctctaaca | aagaagttgc | tgaggttgtt | 1920 |
| caatctagt | tccttcctga | tatgttcaaa | gctacatatg | aagcaatcac | caaaggaaat | 1980 |
| tccatgtgga | atcagttatc | tgtggcgctc | ggtactctct | atgagtggga | cccgaatatc | 2040 |
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| agaggcactt | ttgcaaatat | ccgtattgtc | aacaaacact | tgaaaggaga | agttggtccc | 2340 |
| aaaacagttc | acattcccac | tggagagaag | ctttctgttt | tcgatgctgc | catgaaatat | 2400 |
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| gcgggagaag | atgctgagac | ccttggccta | acgggtcagg | agctttacac | cattgagctc | 2640 |
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<400> 2

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Pro Asp Gly Gly Glu Phe Gly Asn Tyr Tyr Ser Leu Pro Ala Leu Asn
20          25          30

```

```

Asp Pro Arg Ile Asp Lys Leu Pro Tyr Ser Ile Arg Ile Leu Leu Glu
35          40          45

```

```

Ser Ala Ile Arg Asn Cys Asp Glu Phe Gln Val Lys Ser Lys Asp Val
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```

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Glu Lys Ile Leu Asp Trp Glu Asn Thr Ser Pro Lys Gln Val Glu Ile
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```

```

Pro Phe Lys Pro Ala Arg Val Leu Leu Gln Asp Phe Thr Gly Val Pro
85          90          95

```

```

Ala Val Val Asp Leu Ala Cys Met Arg Asp Ala Met Asn Asn Leu Gly
100         105         110

```

```

Gly Asp Ser Asn Lys Ile Asn Pro Leu Val Pro Val Asp Leu Val Ile
115         120         125

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| | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | His | Ser | Val | Gln | Val | Asp | Val | Ala | Arg | Ser | Glu | Asn | Ala | Val | Gln | 130 | 135 | 140 |
| Ala | Asn | Met | Glu | Leu | Glu | Phe | Gln | Arg | Asn | Lys | Glu | Arg | Phe | Ala | Phe | 145 | 150 | 155 |
| Leu | Lys | Trp | Gly | Ser | Asn | Ala | Phe | His | Asn | Met | Leu | Val | Val | Pro | Pro | 165 | 170 | 175 |
| Gly | Ser | Gly | Ile | Val | His | Gln | Val | Asn | Leu | Glu | Tyr | Leu | Ala | Arg | Val | 180 | 185 | 190 |
| Val | Phe | Asn | Thr | Asn | Gly | Leu | Leu | Tyr | Pro | Asp | Ser | Val | Val | Gly | Thr | 195 | 200 | 205 |
| Asp | Ser | His | Thr | Thr | Met | Ile | Asp | Gly | Leu | Gly | Val | Ala | Gly | Trp | Gly | 210 | 215 | 220 |
| Val | Gly | Gly | Ile | Glu | Ala | Glu | Ala | Thr | Met | Leu | Gly | Gln | Pro | Met | Ser | 225 | 230 | 235 |
| Met | Val | Leu | Pro | Gly | Val | Val | Gly | Phe | Lys | Leu | Thr | Gly | Lys | Leu | Arg | 245 | 250 | 255 |
| Asp | Gly | Met | Thr | Ala | Thr | Asp | Leu | Val | Leu | Thr | Val | Thr | Gln | Met | Leu | 260 | 265 | 270 |
| Arg | Lys | His | Gly | Val | Val | Gly | Lys | Phe | Val | Glu | Phe | His | Gly | Glu | Gly | 275 | 280 | 285 |
| Met | Arg | Glu | Leu | Ser | Leu | Ala | Asp | Arg | Ala | Thr | Ile | Ala | Asn | Met | Ser | 290 | 295 | 300 |
| Pro | Glu | Tyr | Gly | Ala | Thr | Met | Gly | Phe | Phe | Pro | Val | Asp | His | Val | Thr | 305 | 310 | 315 |
| Leu | Gln | Tyr | Leu | Arg | Leu | Thr | Gly | Arg | Ser | Asp | Asp | Thr | Val | Ser | Met | 325 | 330 | 335 |
| Ile | Glu | Ala | Tyr | Leu | Arg | Ala | Asn | Lys | Met | Phe | Val | Asp | Tyr | Ser | Glu | 340 | 345 | 350 |

Pro Glu Ser Lys Thr Val Tyr Ser Ser Cys Leu Glu Leu Asn Leu Glu
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Asp Val Glu Pro Cys Val Ser Gly Pro Lys Arg Pro His Asp Arg Val
 370 375 380

Pro Leu Lys Glu Met Lys Ala Asp Trp His Ser Cys Leu Asp Asn Arg
 385 390 395 400

Val Gly Phe Lys Gly Phe Ala Val Pro Lys Glu Ala Gln Ser Lys Ala
 405 410 415

Val Glu Phe Asn Phe Asn Gly Thr Thr Ala Gln Leu Arg His Gly Asp
 420 425 430

Val Val Ile Ala Ala Ile Thr Ser Cys Thr Asn Thr Ser Asn Pro Ser
 435 440 445

Val Met Leu Gly Ala Ala Leu Val Ala Lys Lys Ala Cys Asp Leu Gly
 450 455 460

Leu Glu Val Lys Pro Trp Ile Lys Thr Ser Leu Ala Pro Gly Ser Gly
 465 470 475 480

Val Val Thr Lys Tyr Leu Ala Lys Ser Gly Leu Gln Lys Tyr Leu Asn
 485 490 495

Gln Leu Gly Phe Ser Ile Val Gly Tyr Gly Cys Thr Thr Cys Ile Gly
 500 505 510

Asn Ser Gly Asp Ile His Glu Ala Val Ala Ser Ala Ile Val Asp Asn
 515 520 525

Asp Leu Val Ala Ser Ala Val Leu Ser Gly Asn Arg Asn Phe Glu Gly
 530 535 540

Arg Val His Pro Leu Thr Arg Ala Asn Tyr Leu Ala Ser Pro Pro Leu
 545 550 555 560

Val Val Ala Tyr Ala Leu Ala Gly Thr Val Asp Ile Asp Phe Glu Thr
 565 570 575

Gln Pro Ile Gly Thr Gly Lys Asp Gly Lys Gln Ile Phe Phe Arg Asp

| 580 | | | | | 585 | | | | | 590 | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Trp | Pro | Ser | Asn | Lys | Glu | Val | Ala | Glu | Val | Val | Gln | Ser | Ser | Val |
| | | 595 | | | | | 600 | | | | | 605 | | | |
| Leu | Pro | Asp | Met | Phe | Lys | Ala | Thr | Tyr | Glu | Ala | Ile | Thr | Lys | Gly | Asn |
| | 610 | | | | | 615 | | | | | 620 | | | | |
| Ser | Met | Trp | Asn | Gln | Leu | Ser | Val | Ala | Ser | Gly | Thr | Leu | Tyr | Glu | Trp |
| 625 | | | | | 630 | | | | | 635 | | | | | 640 |
| Asp | Pro | Lys | Ser | Thr | Tyr | Ile | His | Glu | Pro | Pro | Tyr | Phe | Lys | Gly | Met |
| | | | | 645 | | | | | 650 | | | | | 655 | |
| Thr | Met | Ser | Pro | Pro | Gly | Pro | His | Gly | Val | Lys | Asp | Ala | Tyr | Cys | Leu |
| | | | 660 | | | | | 665 | | | | | 670 | | |
| Leu | Asn | Phe | Gly | Asp | Ser | Ile | Thr | Thr | Asp | His | Ile | Ser | Pro | Ala | Gly |
| | | 675 | | | | | 680 | | | | | 685 | | | |
| Ser | Ile | His | Lys | Asp | Ser | Pro | Ala | Ala | Lys | Tyr | Leu | Met | Glu | Arg | Gly |
| | 690 | | | | | 695 | | | | | 700 | | | | |
| Val | Asp | Arg | Arg | Asp | Phe | Asn | Ser | Tyr | Gly | Ser | Arg | Arg | Gly | Asn | Asp |
| 705 | | | | | 710 | | | | | 715 | | | | | 720 |
| Glu | Ile | Met | Ala | Arg | Gly | Thr | Phe | Ala | Asn | Ile | Arg | Ile | Val | Asn | Lys |
| | | | | 725 | | | | | 730 | | | | | 735 | |
| His | Leu | Lys | Gly | Glu | Val | Gly | Pro | Lys | Thr | Val | His | Ile | Pro | Thr | Gly |
| | | | 740 | | | | | 745 | | | | | 750 | | |
| Glu | Lys | Leu | Ser | Val | Phe | Asp | Ala | Ala | Met | Lys | Tyr | Arg | Asn | Glu | Gly |
| | | 755 | | | | | 760 | | | | | 765 | | | |
| Arg | Asp | Thr | Ile | Ile | Leu | Ala | Gly | Ala | Glu | Tyr | Gly | Ser | Gly | Ser | Ser |
| | 770 | | | | | 775 | | | | | 780 | | | | |
| Arg | Asp | Trp | Ala | Ala | Lys | Gly | Pro | Met | Leu | Leu | Gly | Val | Lys | Ala | Val |
| 785 | | | | | 790 | | | | | 795 | | | | | 800 |
| Ile | Ser | Lys | Ser | Phe | Glu | Arg | Ile | His | Arg | Ser | Asn | Leu | Val | Gly | Met |
| | | | | 805 | | | | | 810 | | | | | 815 | |

Gly Ile Ile Pro Leu Cys Phe Lys Ala Gly Glu Asp Ala Glu Thr Leu
820 825 830

Gly Leu Thr Gly Gln Glu Leu Tyr Thr Ile Glu Leu Pro Asn Asn Val
835 840 845

Ser Glu Ile Lys Pro Gly Gln Asp Val Thr Val Val Thr Asn Asn Gly
850 855 860

Lys Ser Phe Thr Cys Thr Leu Arg Phe Asp Thr Glu Val Glu Leu Ala
865 870 875 880

Tyr Phe Asp His Gly Gly Ile Leu Gln Tyr Val Ile Arg Asn Leu Ile
885 890 895

Lys Gln